

U.S. Pat. App. Ser. No. 09/819,778
Attorney Docket No. 12048/1
Reply to Office Action of January 22, 2004

REMARKS

Claim 6 is canceled without prejudice, and therefore claims 1 to 5 and 7 to 10 are now pending

Applicants respectfully request reconsideration of the present application in view of this response.

Claims 1 to 5 and 7 to 10 have been rewritten to correct grammatical and other errors, or to further emphasise certain key features of the presently claimed subject matter of the present application when compared to the references relied upon. No new matter has been added, and the claims are supported by the present application, including the specification. Approval and entry are respectfully requested.

With respect to page two (2) of the Office Action, claims 1 and 2 were rejected under 35 U.S.C. § 112 as indefinite.

As to claim 1, a “first one” has been changed to “at least one series” to better clarify that the data values are “from at least one of the plurality of series” of data values making up the collection. The expression “current data values” has been deleted. As to utilised and utilising, these represent the British spellings of utilized and utilizing. While it is believed that these terms are definite, their occurrence has been corrected to use the American version of the spelling.

As to claim 2, the phrases “of computer” and “over previously” have been corrected as suggested.

While the claims are definite for these reasons alone, it is noted that the second paragraph of 35 U.S.C. § 112 only requires that the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. As provided in M.P.E.P. § 2173.02, the “focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph is whether the claim meets the threshold requirement of clarity and precision.” In this regard, the “essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity.” *Id.* (emphasis added).

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“Definiteness of claim language must be analyzed, not in a vacuum, but in light of [the] content of the particular application disclosure [and the] claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.” *Id.* If the claims, when read in light of the Specification, reasonably apprise those skilled in the art both of the utilization and scope of the claimed subject matter, and if the language is as precise as the subject matter permits, the second paragraph of 35 U.S.C. § 112 demands no more. M.P.E.P. § 2173.05(a) (citing *Shatterproof Glass Corp. v. Libbey Owens Ford Co.*, 758 F.2d 613, 225 U.S.P.Q. 634 (Fed. Cir. 1985)).

Accordingly, it is respectfully submitted that claims 1 and 2 are definite, and are therefore allowable.

As regards paragraph three (3), claims 1 to 10 were rejected under 35 U.S.C. § 102(b) as anticipated by Gonikberg et al., U.S. Patent No. 6,018,755.

As regards paragraph four (4), claims 1 to 10 were rejected under 35 U.S.C. § 102(b) as anticipated by Wang, U.S. Patent No. 5,548,543.

As regards the anticipation rejection of the claims, to reject a claim under 35 U.S.C. § 102(b), the Office must demonstrate that each and every claim feature is identically described or contained in a single prior art reference. (See Scripps Clinic & Research Foundation v. Genentech, Inc., 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991)). Still further, not only must each of the claim features be identically described, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed subject matter, as discussed herein. (See Akzo, N.V. v. U.S.I.T.C., 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986)).

As further regards the anticipation rejections, to the extent that the Office Action may be relying on the inherency doctrine, it is respectfully submitted that to rely on inherency, the Examiner must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics *necessarily* flows from the teachings of the applied art.” (See M.P.E.P. § 2112; emphasis in original; and see *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int’l. 1990)). Thus, the M.P.E.P. and the case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic. Accordingly, it is respectfully

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submitted that any anticipation rejection premised on the inherency doctrine must fail absent the foregoing conditions.

As characterized in the “Gonikberg” reference, it only concerns a Finite Impulse Response (FIR) filter, which is implemented in software on a general purpose processor in a manner which purportedly reduces the number of memory accesses as compared to conventional methods. In particular, and as stated in the reference, an efficient implementation for a general purpose processor having a substantial number of registers includes inner and outer loop code which together make $EQU1$ memory accesses and KN multiply-accumulates, where $L1$ is the number of output vector elements computed during each pass through the outer loop and where $L2$ is the number of taps per output vector element computed during each pass through the inner loop, where the implementation exploits $L1 + 2L2$ general purpose registers. As further stated in the reference, for an embodiment in which $L1 = L2 = 8$, inner and outer loop code make $EQU2$ memory accesses, which for filter implementations with large numbers of taps purportedly reduces the number of memory accesses. (See Abstract).

As to the “Wang” reference, it only concerns a discrete-time filter processes digital signals according to a specified function. As characterized in the reference, it has a linear-phase response if all frequencies experience the same time delay when passing through the filter. In this invention computationally efficient digital filters with linear-phase response are constructed according to a very general and computationally efficient algorithm. The reference also refers to a method for constructing fast truncated infinite impulse response filters with polynomial-times-exponential response. As characterized, the method may be used to design efficient special purpose filters for dedicated applications, or it may be encoded on a chip to permit the creation in real time of specific filters according to variable filtering parameters. As stated in the reference, applications include fast high-resolution frequency estimation (e.g., for pitch tracking and radar) and fast digital filtering in commercial digital audio systems (e.g., for real-time mixing and equalization of signals and digital loudspeaker crossover networks). (See Abstract).

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While the rejections may not be agreed with, to facilitate matters and to better clarify the claimed subject matter, claim 1 as presented is to a method of reducing the amount of computer memory utilized in calculating a formula on a collection of series of data values, the method comprising the steps of: (a) for each data value member of at least one series of said collection, **determining the size of a window of data values** required to calculate said formula; (b) **obtaining the size of the window** required for the at least one series on the basis of said determination; and (c) utilizing said window having said **predetermined size** to determine data values to be stored in computer memory when calculating the formula when applied to other series of data values in said collection.

It is respectfully submitted that any review of either of the references relied upon makes plain that they do not identically disclose (or even suggest) the features of for each data value member of at least one series of said collection: (a) **determining the size of a window** of data values required to calculate said formula; (b) **obtaining the size of the window required for the at least one series on the basis of said determination**, and (c) utilizing said window having said **predetermined** size to determine data values to be stored in computer memory when calculating the formula when applied to other series of data values in said collection.

It is therefore respectfully submitted that claim 1 as presented is allowable, as are its dependent claims 2 and 9, as well as dependent claim 8 as presented. In particular, claim 8 as presented also now depends from claim 1, and is therefore allowable for the same reasons as claim 1. It concerns a particular embodiment in which the window size determined is the minimum window size required for the collection of data values.

Claim 3 as presented is to a computer system, with a primary memory store, and includes: a computer program having a process for carrying out a formula calculation on a collection of series of data values, the calculation being carried out using members of the series with the calculation for a current member of the series being dependent on other data values located relative to the current member of the series, the process including:

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- (a) for each member of said series, determining a window size corresponding to a relative series of consecutive data values required for determining said formula for said member;
- (b) obtaining the size of the window required for the series on the basis of said determinations; and
- (c) utilizing said window having said predetermined size to determine data values to be stored in computer memory when calculating the formula when applied to other series of data values in said collection.

It is respectfully submitted that any review of either of the references relied upon makes plain that they do not identically disclose (or even suggest) the features of a process that includes carrying out a formula calculation on a collection of series of data values, the calculation being carried out using members of the series with the calculation for a current member of the series being dependent on other data values located relative to the current member of the series, the process including the features of:

- (a) for each member of said series, **determining a window size** corresponding to a relative series of consecutive data values required for determining said formula for said member;
- (b) **obtaining** the size of the window required for the series on the basis of said determinations; and
- (c) utilizing said window having **said predetermined size** to determine data values to be stored in computer memory when calculating the formula when applied to other series of data values in said collection.

Accordingly, claim 3 as presented is allowable, as are its dependent claims 4 and 5, as well as claims 7 and 10 as presented, which now depend from claim 3.

In light of the amendments made above, claim 6 has been canceled without prejudice.

In summary, it is respectfully submitted that all of claims 1 to 5 and 7 to 10 are allowable at least for the foregoing reasons.

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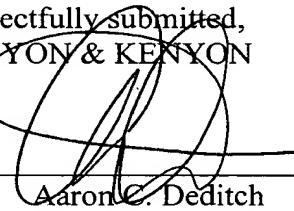
CONCLUSION

In view of the foregoing, it is believed that the rejections have been obviated, and that claims 1 to 5 and 7 to 10 are allowable. It is therefore respectfully requested that the rejections be withdrawn, and that the present application issue as early as possible.

If the Examiner should have any questions or wish to discuss this matter, The Examiner is encouraged to contact the undersigned (Aaron C. Deditch, Reg. No. 33,865), who may be contacted at 212-908-6417.

Dated: 7/20/04

Respectfully submitted,
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